

WHAT IS CLAIMED IS:

1. A pre-pit detecting apparatus for an optical recording medium,
which has information tracks for recording record information and guide
5 tracks for guiding a light beam to the information tracks, and further has
pre-pits carrying pre-information formed on the guide tracks, the pre-pit
detecting device including a push-pull circuit, which when the optical
beam is irradiated to one of the information tracks, computes the
10 difference between a first read signal and a second read signal generated
on the basis of outputs of electrical signals from a light receiving unit,
divided into two parts by a division line at least optically parallel with the
information track, to generate a difference signal, such that the pre-pit
detecting device detects a pre-pit on the basis of the difference signal
15 output from the push-pull circuit, wherein said push-pull circuit
comprises

an amplitude correcting device for computing the amplitude of the
first read signal and the amplitude of the second read signal to bring both
amplitudes close to each other and consequently make them coincide,
such that said push-pull circuit performs a computation on the difference
20 between the first and second read signals whose amplitudes have been
made to coincide by said amplitude correcting device.

2. The pre-pit detecting apparatus according to claim 1, wherein
said push-pull circuit further comprises a device for removing a direct-
25 current component from the amplitude of the first read signal and a device
for removing the direct-current component from the amplitude of the
second read signal, wherein

said amplitude correcting device computes the difference between the amplitudes of the first and second read signals, from which the direct-current component has been removed, to bring both amplitudes close to each other and consequently make them coincide.

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3. The pre-pit detecting apparatus according to claim 1, wherein the difference computed by said amplitude correcting device is the difference between the maximum amplitude of the first read signal and the maximum amplitude of the second read signal.

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4. The pre-pit detecting apparatus according to claim 2, wherein the difference computed by said amplitude correcting device is the difference between the maximum amplitude of the first read signal and the maximum amplitude of the second read signal.

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